

# Antimicrobial Stewardship in the Community

PRACTICE GUIDELINES



#### SCOPE

This guideline applies to the provision of paid support services in the community. They are relevant Australia-wide or when a participant is travelling overseas with their Australian team of support worker/s.

#### DISCLAIMER

This guideline is provided to help guide best practice in the disability, aged care and community support industry. This information does not in any way replace legislative, regulatory, or contractual requirements. Users of this document should seek appropriate expert advice in relation to their circumstances. ACIA does not accept any liability on the use of this guideline.

### PURPOSE

This quideline is to assist:

The purpose of this procedure is to promote evidence-based practice in the optimal use of antimicrobials for our clients. High rates of inappropriate antimicrobial use pose an increased risk to the safety of client care and the acquisition of antimicrobial resistant infections. The aim of Antimicrobial Stewardship is to improve client safety and outcomes and reduce antimicrobial resistance.

#### DESIRED OUTCOME

- To maintain a quality and safe standard of service delivery support
- To optimise antibiotic management of clients to ensure optimal treatment as prescribed by the Medical Practitioner.
- Overseeing and promoting the Antimicrobial Stewardship program.
- Track antimicrobial use as part of monthly clinical indicator reporting.
- Communicating expectations and results of the program with key stakeholders.

## DEFINITIONS & SUPPORTING INFORMATION

**Community Supports and/or Services** is defined as the provision of paid supports and services in a service user's home or community. It includes but is not limited to, the following activities of daily living:

- personal care or support
- housework or domestic assistance
- transport assistance
- community access
- social support
- nursing services
- clinical supports
- gardening and home maintenance
- palliative care
- respite care

**Support Worker** - A paid person who assists people to perform tasks of daily living so as to participate in social, family and community activities in the person's home and their community. Support Workers have been commonly known in the past as attendant care worker, disability worker, aged care worker, community worker, homecare worker, care worker or paid carer.

Service Provider - Organisation or person accountable for the delivery of supports to Clients.

Carer - a person that provides supports to the Client at no cost (generally family or friend).

**Support Worker Competency** - trained and assessed as competent by a Registered Nurse or a person deemed competent by the provider to safely and appropriately perform a specified task as a support worker.

Client means the service user, participant, user, care recipient, consumer or person receiving the nursing or support services.

Plan means a Service Plan, Support Plan or Individual Plan (however titled – the plan) is a document developed in response to a request for service. It is developed by a Registered Nurse or a person deemed competent by the provider from the service provider, prior to the commencement of service delivery. It outlines the expected outcomes of the requested care/services and the tasks, duties and interventions required to meet the care and service needs of the client (within the parameters of the funding program). The plan guides and directs the individual support worker or Registered Nurse in their day-to- day delivery of the services.

**Registered Nurse** means a person who has completed the prescribed educational preparation, demonstrated competence for practice, and is registered and licensed with the Australian Health Practitioner Regulation Agency (AHPRA) as a Registered Nurse.

**Competent** means having been trained and assessed by a registered nurse or enrolled nurse or approved assessor as competent to safely and appropriately perform a specified task.

Antimicrobial - A chemical substance that kills or inhibits the growth of bacteria, viruses and fungi, including yeasts or moulds.

Antimicrobial resistance - Antimicrobial resistance happens when bacteria change to protect themselves from an antimicrobial. When this happens, antimicrobials that previously would have killed the bacteria, or stopped them from multiplying, no longer work against those bacteria. (Australian Commission on Safety and Quality in Health Care, 2014).

**BacteriaMicroscopic living organisms,** usually one-celled, that can be found everywhere. Most bacteria are harmless, but they can become dangerous when they cause infections.

**Broad-spectrum antimicrobials** - Antimicrobials that are active against a wide range of organisms are referred to as broad-spectrum antimicrobials.

Clinically indicated - Having a symptom or condition that makes a particular treatment or procedure advisable.

**Clinician** - A healthcare provider trained as a health professional. Clinicians include registered and non-registered practitioners, or a team of health professionals, who provide direct clinical care.

Dose - A specified quantity of a therapeutic agent, such as a medicine, prescribed to be taken at one time or at stated intervals.

**Guidelines** - Clinical practice guidelines are systematically developed statements to assist practitioner and decisions about appropriate health care for specific circumstances.

Client record - Information about a (client) held in hard or soft copy. The medical record may comprise clinical records (such as medical history, treatment notes, observations, correspondence, investigations, test results, photographs, prescription records, medication charts), administrative records (such as contact and demographic information, legal and occupational health and safety reports) and financial records (such as invoices, payments and insurance information).

**Infection** - The invasion and reproduction of pathogenic or disease-causing organisms inside the body. This may cause tissue injury and disease. Infectious agents can include bacteria, viruses, fungi and parasites.

**Microbiology testing** - Tests performed on specimens (e.g. a blood sample) in a laboratory to determine the cause of an infection and to identify suitable treatments.

**Narrow-spectrum antimicrobials** - Antimicrobials that target particular organisms or groups of organisms are referred to as narrow-spectrum antimicrobials. See also Broad-spectrum antimicrobials.

**Prophylactic use** - The use of antimicrobials to prevent an infection in clinical situations where there is significant risk of infection occurring. For example, antimicrobials are sometimes given before surgery as a preventative measure against infection.

#### GUIDELINE

The use of antimicrobials in clients should be governed and have oversight through an antimicrobial stewardship (AMS) program. The organisation should recognise and assess client's need to use antimicrobials, recommend appropriate interventions and evaluate overall antibiotic use at the home. Their role also includes but is not limited to the following:

- collection and reporting on data related to antimicrobial prescribing and use, antimicrobial resistant organisms, culturing and adverse drug events;
- evaluation of the risk of antimicrobial related harms to the client;
- identification of infection based on standardised criteria;
- use of evidence-based antimicrobial prescribing guidelines;
- identification of antimicrobial use that is not aligned with organisational policy or guidelines;
- review of prescriptions for antimicrobial use to ensure they are aligned with the goals of care;
- review of length of antimicrobial treatment and effectiveness;
- review of appropriateness of antimicrobials prescribed;
- identify adverse outcomes that might be associated with antimicrobials;
- provide information on:
  - o safe administration of antimicrobials and prevention of medication errors as well as correct management of phone or fax orders;
  - o the return of unused antimicrobials to pharmacist; and
  - o documentation of the antimicrobial treatment plan in the clients health record.

Prior to commencing antimicrobial therapy consider the risk of antimicrobial related harms to the client(s). These include risk of serious diarrheal infections from C.difficile, increased adverse drug events and drug interactions and colonisation and/or infection with antimicrobial-resistant organisms.

#### The aim of the program:

- Identify clients who require antimicrobial therapy and recognise the risks associated with high, or inappropriate, antimicrobial use.
  - o Conduct clinical assessment and collect clinical evidence to confirm presence, source and type of infection.
  - o If clinical criteria of new, or increasing, infection are present carry out diagnostic testing. Specimens for microbiology must be collected correctly and in a timely manner before commencing antimicrobials.
  - o Follow up and review microbiology results in a timely manner to confirm presence of infection. Refer to previous antimicrobial susceptibility results where a specimen/culture could not be collected, or microbiology results are not available.
- Communicate the clinical indicators of infection in a timely and effective manner to the medical officer/GP. Discuss use of evidence-based antimicrobial prescribing guidelines (e.g. Therapeutic Guidelines Ltd) to understand the:
  - o duration of therapy (kept at a minimum for resolution of infection);
  - o dosage and frequency targeted to the client's clinical condition, site and type of infection;
  - o the narrowest spectrum therapy required; and
  - o the use of alternative interventions to manage asymptomatic bacteriuria.
- The response to clients presenting with serious infection or acute deterioration must be escalated.
- Establish and verify if the client has a history of antimicrobial allergies or other antimicrobial adverse effects.
- Establish the client's goals of care (comfort versus survival) or when their condition changes as this will inform antimicrobial use at end of life for example: alignment of the decision to prescribe an antimicrobial or not with the client's goals of care i.e. comfort or end of life care or extended survival. Consideration of whether the clinical symptoms justify the prescription of antimicrobials and if the goals of care have been discussed with the client and or their representative.
- If antimicrobial therapy is not indicated, document concerns and investigations and communicate to client (s) and their representative why this is the case.
- The antimicrobial stewardship program at the home will support safe administration of antimicrobials and prevention of medication errors. This includes:
  - checking the client's allergy status;
  - o ensuring the right antimicrobial is administered to the right client at the right dose, route, form and time, and then documented;
  - o identifying and challenging antimicrobial use that does not align with policy or guidelines;
  - o returning unused antimicrobials to the pharmacist for appropriate disposal;
  - o ensuring the client's antimicrobial treatment plan is documented in a timely manner in the health record and includes:
    - indication(s) for treatment
    - generic drug name, dose, time and route of administration
    - planned duration of treatment
    - review/stop date
- Following initiation of an antimicrobial, monitor and document the client's response to treatment including any allergic responses and adverse effects of antimicrobial use such as:
  - o diarrhoea associated with C.difficile;
  - o increased incidence of diarrhoea amongst other clients suggesting transmission; and
  - o candidiasis (oropharyngeal, vulvovaginal).
- Where antimicrobial therapy for a suspected infection was commenced prior to receipt of investigation results, contact the medical officer to:
  - o review the results within 24 hours of receipt; and
  - o adjust or cease antimicrobial therapy as appropriate.
- The clinical team (nurse, medical officer/GP, and pharmacist) should initiate an antimicrobial review process after 48-72 hours of commencing treatment or on the documented review date to assess ongoing need and choice of antimicrobial. This review needs to include:
  - o identification of treatment that is not in line with microbiological results or recommended guidance, and highlight this to prescribers;
  - o repeat of microbiology to inform continuation or cessation of antimicrobial;
  - o reconciliation and adjustment of the prescription (appropriateness of antimicrobial, dose, duration and route of administration) in accordance to the client's clinical need and response to treatment; and
  - o switching treatment with broad spectrum antibiotic to a narrow spectrum antibiotic as guided by microbiology results and clinical condition; and specialist advice to ensure optimal treatment is being provided
- When an antimicrobial has been prescribed, the client need to be given information in an accessible and understandable format. This includes information about the infection, treatment, benefits and risks of treatment.

- Provision of general education to clients and family needs to include:
  - What antimicrobial stewardship is, and why it is important;
  - The difference between bacterial and viral infections and the role of antimicrobials;
  - o Safe and appropriate medication use; and
  - o Expectations and goals of care.
  - Education to Staff
- The Manager is responsible to ensure appropriate training is provided to staff regarding antimicrobial stewardship.

#### RESOURCE DOCUMENTS

- External ACIA Guidelines 002 Care and Service Provision in the Community
- Australian Community Industry Standards ACIS
- Quality of Care Amendment (Single Quality Framework) Principles 2018
- Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship in Australian Health Care. 2018.
  Sydney: ACSQHC; 2018. Available at: https://www.safetyandquality.gov.au/our-work/healthcare-associated-infection/antimicrobial-stewardship/book/
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- Centers for Disease Control and Prevention. The Core Elements of Antimicrobial Stewardship for Nursing Homes. Atlanta,
  GA: US Department of Health and Human Services, CDC; 2015. Available at: http://www.cdc.gov/longtermcare/index.html
- Robyn L.P. Jump, Swati Jaur, Morgan J. Katz, Christopher J. Crnich, Ghinwa Dhumyati, Muhammad S. Ashraf, Elizabeth Frentzl, Steven J. Schweon, Philip Sloane, David Nace. Template for an Antibiotic Stewardship Policy for Post-Acute and Long-Term Care Settings. JAMDA 18 (2017) 913-920.